

I CLAIM

1. A pharmaceutical delivery system comprising:

a first container for receiving a first component of a pharmaceutical, a first broachable closure closing the container, the first container further comprising fluid displacement means for moving fluid into and out of the container through the broachable closure;

a second container containing a second component of the pharmaceutical, and a second broachable closure closing the container;

10 a body comprising a diverter valve and first, second and third vessels extending to open ends from the diverter valve which valve is operative to alternatively connect the first and second vessels or the first and third vessels;

a first socket communicating with the open end of the first vessel, for receiving at least a part of the first container, including the broachable closure of the first container, the socket containing first broaching means to broach that closure;

a second socket communicating with an open end of the first vessel, for receiving at least a part of the second container, including the broachable closure of the second container; the socket containing second broaching means to broach that closure; and

20 a tubulation for delivery of the pharmaceutical connected to the open end of the third vessel.

25 2. A system according to claim 1, wherein at least one of the broachable closures is a penetrable seal, and the associated broaching means is a cannula.

3. A system according to claim 1, wherein the first container is a syringe.

4. A system according to claim 3, wherein the syringe has a luer, and the penetrable closure is a rubber cap over the luer.

5. A system according to claim 1, wherein the second container is a pharmaceutical vial.

6. A system according to claim 1, wherein both the first and second sockets have narrowed portions connecting them to the first and second vessels, the narrowed portions containing broaching means in the form of cannulas directed away from the vessels towards the sockets, and the narrowed portions are dimensioned so that portions of the first and second containers including the closures thereof are a press fit therein such that the closures of the containers may be pressed onto the cannulas to broach the closures.

15 7. A system according to claim 1, in which the first container is pre-filled with the first component of the pharmaceutical.

8. A system according to claim 1, in which the first container is initially empty, and the tubulation attached to the third vessel has an adaptor usable for aspiration of a liquid component of the pharmaceutical from a container as well as for delivery of the reconstituted pharmaceutical.

20 9. A system according to claim 1, wherein the first and second sockets are coaxial and rigidly connected to one another through a housing accommodating the diverter valve.

25 10. A pharmaceutical delivery system comprising:
a first container for receiving a first component of a pharmaceutical, a first broachable closure closing the container, the first container further comprising fluid

displacement means for moving fluid into and out of the container through the broachable closure;

a second container containing a second component of the pharmaceutical, and a second broachable closure closing the container;

5 a body comprising a diverter valve and first, second and third vessels extending to open ends from the diverter valve which valve is operative to alternatively connect the first and second vessels or the first and third vessels;

10 a first socket communicating with the open end of the first vessel, for receiving at least a part of the first container, including the broachable closure of the first container, the socket containing first broaching means to broach that closure;

15 a second socket communicating with an open end of the first vessel, for receiving at least a part of the second container, including the broached closure of the second container; the socket containing means to establish communication with the content of the second container; and

a tubulation for delivery of the pharmaceutical connected to the open end of the third vessel.

20 11. A system according to claim 10, wherein the second container is an ampoule having a frangible neck portion and broachable by breaking off of said neck portion.